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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/849,299

05/20/2004

Tamaki Koide

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EXAMINER

KRAUSE, JUSTIN MITCHELL

ART UNIT

PAPER NUMBER

3682

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/849,299

Applicant(s)

KOIDE, TAMAKI

Examiner

Justin Krause

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5 and 7-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/20/04 and 8/25/06 (replacement sheet) is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 2, 2007 has been entered.

Claim Objections

Claim 1 is objected to because of the following informalities: The term "quadrangle" does not appear to be a term used in the art. It is defined by several dictionaries as an architectural term defining an open area surrounded by buildings on four sides. Perhaps a better term would be --quadrilateral--. Appropriate correction is required.

Claim 10 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 1 recites that at least one of the pair of connecting links is curved, therefore, claim 10 is a duplicate recitation.

Claim Rejections - 35 USC § 112

Claims 1, 3-5, and 7-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The invention is claimed as defined by a four bar linkage defined by a parallelogram, but then further claimed that the sides are not parallel, directly contradicting the definition of a parallelogram. It is unclear what shape the linkage is intended to be. For clarity and to avoid further indefiniteness, it is suggested that if applicant's intent is to claim a linkage that does not have two pairs of parallel sides, then another term be used other than "parallelogram".

Claim 5 directly contradicts claim 1. Claim 1 recites that "said pair of connecting link elements being non-parallel to each other", and claim 5 claims the connecting link elements are parallel.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5, 7, 8, and 10, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Iida (US Patent 4,132,124) in view of Mizelle (US Patent 3,800,337).

Iida discloses a shift lever apparatus comprising:

- a base member (17)

- a shift lever (1)

- at least one planar four bar linkage (15,16,17,12) supporting the shift lever, the linkage defined by the corners of a quadrangle including of four connecting members (A, B, D, E) positioned at the corners of a parallelogram, the base side link element (17) and lever side link element (12) oppose each other and a pair of connecting link elements (15 and 16) connect the base side link element and lever side link element to support the shift lever, the base side link element and lever side link element are straight and parallel to each other.

Iida does not disclose at least one of the connecting link elements to be curved and the connecting link elements to be non-parallel.

Mizelle teaches a four bar linkage having a pair of straight link elements (20 and 26) and a pair of connecting link elements (52 and 59) which are curved and non-parallel to each other for the purpose of increasing the amount of rotation before the links contact stop pins (63 and 66).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Iida to include curved connecting links for the desired purpose of avoiding contact or providing more range of motion before contact with other members such as stop pins as taught by Mizelle.

Additionally, it would have been an obvious matter of routine experimentation to adjust the shape of the linkage to not interfere with other parts of the device. Such space and interference considerations are paramount to the design process since a designer would be cognizant of such interference issues and either move parts, or make adjustments to the shape and configuration of parts to produce a functional device. Applicant has not provided any reason as to why it is critical to provide curved links aside from the desire to produce a functional device, which in itself, is not patentable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Iida to include curved, non-parallel connecting links through routine experimentation in the design process to provide a functional device with a range of motion suitable to the operation of the mechanism.

Regarding claim 3, inherently, due to the characteristics of a parallelogram four bar, the lever-side link is substantially parallelly shifted in the operational plane.

Regarding claim 4, four connecting portions (A, B, D, E) connect the lever-side link element, the base-side link element and pair of connecting link elements to each other, the four connecting portions having parallel rotation axes.

Regarding claim 7, the base link element is arranged along a rotational axis and the operational plane is rotatable about the rotation axis in a direction perpendicular to the operational plane.

Regarding claim 8, the four bar linkage includes an operational plane in which the four link elements conduct a link motion in an operational plane, a base side link

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element is arranged along a rotation axis and the operational plane of the four bar linkage is rotatable about the rotation axis in a plane perpendicular to the operational plane.

Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iida in view of Mizelle as applied to claims 1 and 3 above and further in view of Kataumi (US Patent 6,148,686).

Iida in view of Mizelle does not disclose a gate member including a shift lever path through which the shift lever extends, including two path portions extending parallel to each other, the gate member including an intermediate wall located between the two path portions having parallel opposite side surfaces.

Kataumi teaches a gate member (22) including a shift lever path (23) through which a shift lever (18) extends, the lever path including two path portions (see fig 4) extending parallel to each other, also including an intermediate wall located between the two path portions having opposite sides parallel to each other for the purpose of guiding the shifter by providing a slotted path to follow and providing indicating marks as to what gear is selected.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Iida to include a gate member in the shift lever apparatus of Iida, for the desired purpose of providing the shifter guidance through a slotted pathway and provide indication of the selected gear as taught by Kataumi.

Regarding claim 11, Kataumi discloses the base member having a plurality of concave surfaces (collectively 41) spaced from each other, and a cylinder portion (31) is provided to a link element, a pin (40) being slidably inserted into the cylinder portion and biased against the surface of the base member (by spring 39).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Krause whose telephone number is 571-272-3012. The examiner can normally be reached on Monday - Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMK 4/5/07
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Thomas R. Hannon
Primary Examiner